

### REMARKS

This Amendment is filed in response to the Office Action mailed on June 6, 2007. With this amendment, claims 15, 16, 18 and 19 are amended. New claims 22-26 are added. Claims 15-26 are presented for consideration and allowance in view of the following remarks.

#### ***Restriction Requirement***

In sections 2 and 3 of the Office Action, a restriction requirement under 35 U.S.C. § 121 was set forth. The provisional election to prosecute the invention of Group II, claims 15-21, is affirmed without traverse, and claims 1-14 are canceled without prejudice. New claims 22-26 directed to a tangible computer storage medium are substantially the same as original claims 15-19, and are therefore believed to be appropriate in view of the election to prosecute Group II claims.

#### ***Claim Rejections Under 35 U.S.C. § 112***

In section 6 of the Office Action, claims 15-19 were rejected under 35 U.S.C. § 112, second paragraph, as being alleged to be incomplete for omitting essential steps, such omission amounting to a gap between the steps. Specifically, the Office Action stated that “[t]he omitted steps are: Being that the method is directed towards annotation of verb-clitic form segments in a lexicon, it is necessary to clearly define a method step outlining the actual annotation of segments, however the claims merely define said segments with no practical result.”

With this Amendment, claims 15, 16, 18 and 19 are amended to add further steps outlining the annotation of segments. For example, claim 15 is amended to include the further step of “annotating the segment using the defined final segment data.” In addition to claims 16-19 including this additional step based on their dependence from independent claim 15, similar further steps are added to each of claims 16, 18 and 19. Therefore, it is respectfully requested that the rejection of claims 15-19 under 35 U.S.C. § 112, second paragraph, be withdrawn. It must also be noted that the amendments to claims 15, 16, 18 and 19 do not narrow the existing step limitations found in the originally filed claims.

***Claim Rejections Under 35 U.S.C. § 102***

In section 8 of the Office Action, claims 15-21 were rejected under 35 U.S.C. § 102(b) as being anticipated by Goni et al., ‘ARIES: A lexical platform for engineering Spanish processing toots’, Natural Language Engineering 3(4), pg. 317-345, Cambridge University Press, 1997 (referred to as “Goni” hereinafter).

Independent claim 15 is directed to a method of annotating verb-clitic form segments in a lexicon. Method claim 15 recites the step limitations of “defining, for a segment, final segment data indicative of whether the segment must appear in a final position of any verb-clitic words formed using the segment;” and “annotating the segment using the defined final segment data.”

In rejecting independent claim 15 as being anticipated by Goni, the Office Action stated:

*Claim 15: Goni* discloses a method of annotating verb-clitic form segments in a lexicon, comprising defining, for a segment (p. 336, ‘patterns’), final segment data indicative of whether the segment must appear in a final position of any verb-clitic words formed using the segment (p. 327, Section 3.3, ‘and the fourth rule validates as words the singular forms (wl) obtained from the first rule without further concatenation.’ p. 336. Section 5.1, ‘/zar\$/, etc...’).

This interpretation of the teachings of Goni is respectfully traversed, and it is maintained that the limitations of independent claim 15 and dependent claims 16-19 are neither taught nor suggested by Goni.

The Office Action cites p. 336, Section 5.1 of Goni as teaching the claim limitation of “defining, for a segment, final segment data indicative of whether the segment must appear in a final position of any verb-clitic words formed using the segment.” However, Goni provides no such teaching. The text from Goni relied upon in the Office Action, namely “and the fourth rule validates as words the singular forms (wl) obtained from the first rule without further concatenation,” is not the same as the claim limitation “defining, for a segment, final segment data indicative of whether the segment must appear in a final position of any verb-clitic words formed using the segment.” Validating as words the singular forms obtained from a rule without further concatenation is not related to, nor does it provide a teaching of, defining segment data

for a segment indicating whether the segment must appear in a final position of any verb-clitic words formed using the segment. This can be seen from the relied upon text, as validating a “segment” as a word by itself isn’t the same as defining whether the segment must be in a final position of any verb-clitic combination word.

The “/zar\$/” example from page 336, Section 5.1 of Goni, which is relied upon in the Office Action, is also further evidence of the fact that Goni does not teach or suggest the claim limitation of “defining, for a segment, final segment data indicative of whether the segment must appear in a final position of any verb-clitic words formed using the segment.” For example, also on page 336, Goni states:

With such rules, any verb ending in *zar* is classified into the model named 2, except if the ending is one of the more specific ones, previously declared. In that case it is classified into the model 3a.

Thus, verbs in the conjugation model 2 have two allomorphs: the first one is regular (stripping the *-ar* ending), and the second one change from *z* to *c* for some inflected forms, depending on the first character of the morpheme to be added.

Nowhere does Goni teach that a segment is annotated by defining for the particular segment whether the segment must appear in a final position of any verb-clitic words using the segment. Instead, this portion of Goni simply classifies different verbs with different endings into different models. Absent a teaching or suggestion of the claimed limitations, independent claim 15 is allowable over Goni, as are dependent claims 16-19. Further, the limitations recited in each of dependent claims 16-19 provide additional bases for allowance of these claims over Goni. Consequently, it is respectfully requested that the rejection of claims 15-19 be withdrawn. Likewise, since new claims 22-26 contain limitations substantially the same as those found in claims 15-19, these new claims are believed to be in condition for allowance as well.

Although claims 20 and 21 were stated to be rejected under 35 U.S.C. § 102(b) as being anticipated by Goni, no reasons for the rejection were provided in the Office Action. Independent claim 20 is directed to a method of combining first and second verb-clitic form segments from a lexicon to form a verb-clitic word. Method claim 20 recites the steps of “determining whether absence of final segment data associated with the first verb-clitic form segment indicates that the

first verb-clitic form segment cannot be a final segment of the verb-clitic word;” “determining whether final segment data associated with the second verb-clitic form segment indicates that the second verb-clitic form segment must be the final segment of the verb-clitic word;” and “combining the first and second verb-clitic form segments from the lexicon to form the verb-clitic word only if it is determined that the first verb-clitic form segment cannot be the final segment and that the second verb-clitic form segment must be the final segment.” This combination of step limitations is neither taught nor suggested by Goni, and it is therefore respectfully requested that the rejection of claims 20 and 21 as being anticipated by Goni be withdrawn.

In section 9 of the Office Action, claims 20 and 21 were rejected under 35 U.S.C. 102(b) as being anticipated by Grimshaw, Jane, ‘Optimal Clitic Positions and the Lexicon in Romance Clitic Systems’, Rutgers University. October 1999 (referred to as “Grimshaw” hereinafter). In support of the rejection of independent claim 20, the Office Action stated:

**Goni** discloses a method of combining verb-clitic segments from a lexicon, comprising:

- i. determining whether absence of final segment data associated with the first verb-clitic form segment indicates that the first verb-clitic form segment cannot be a final segment of the verb-clitic word (p. 14, ‘*The alignment constraints...*’);
- ii. determining whether final segment data associated with the second verb-clitic form segment indicates that the second verb-clitic form segment must be the final segment of the verb-clitic word (p. 15, ‘*It is apparent that...*’); and
- iii. combining the first and second verb-clitic form segments from the lexicon to form the verb-clitic word only if it is determined that the first verb-clitic form segment cannot be the final segment and that the second verb-clitic form segment must be the final segment (p. 23, ‘*All candidates which...*’ p. 26, ‘*Table 17 shows that...*’).

It is respectfully maintained that Grimshaw does not teach the claim limitations of independent claim 20. First, Grimshaw discloses that multiple clitics are to be combined according to constraints and in fixed orders. See e.g., Grimshaw at, Section 3, pages 10 and 11 which state:

When clitics combine, as mentioned above, they do so in fixed orders, different for different linguistic systems. Given the lexicon developed in Sections 1 and 2,

the relative order of clitics in combination can be determined by a set of alignment constraints on morpho-syntactic specifications for person and case. For related work proposing that clitics are subject to alignment constraints see Anderson 1996, in press, Gerlach 1998, Legendre (1996, in press, this volume b) Van der Leeuw 1995. It is important to note that these constraints govern *the order* of clitics when they combine with each other, not the well-formedness of the combinations in the first place, which is a matter for markedness constraints (see Section 4).

See also, Section 3.1, page 14, which states:

The alignment constraints DATRT and ACCRT both require that a case-specified clitic occur on the right, hence when only one clitic in a combination has a case specification, that clitic will appear on the right hand edge. However, when there are two, as there can be if one is dative and one is accusative, provided that the constraint targeting datives is the dominant one, the system will settle on the choice of the dative on the edge. Thus, clitics from column A will precede clitics from column B, as illustrated in Table 6, and clitics from B column will precede clitics from C, as illustrated in Table 7.

However, Grimshaw does not teach a method of forming verb-clitic words which includes the steps recited in independent claim 20. Grimshaw does not teach the step of “determining whether absence of final segment data associated with the first verb-clitic form segment indicates that the first verb-clitic form segment cannot be a final segment of the verb-clitic word.” Alignment constraints for combining multiple clitics are not a teaching of the determination of the absence of final segment data associated with a first verb-clitic form segment of a verb-clitic word. Similarly, the disclosure in Grimshaw that in combining multiple clitics “the lexical representation of the clitics is crucial in predicting clitic order,” which was cited by the Office Action, is not a teaching of the required claim step of “determining whether final segment data associated with the second verb-clitic form segment indicates that the second verb-clitic form segment must be the final segment of the verb-clitic word.” Lacking a teaching of these two claim limitations from independent claim 20, independent claim 20 and dependent claim 21 cannot be anticipated by Grimshaw. Consequently, it is respectfully requested that the rejection of claims 20 and 21 be withdrawn.

The Director is authorized to charge any fee deficiency required by this paper or credit any overpayment to Deposit Account No. 23-1123.

Respectfully submitted,

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